Congressional Testimony

Implications of Electric Vehicle Investments for Agriculture and Rural America

Lincoln E. Wood

Electrification Policy Manager

Southern Company

Testimony before the

Committee on Agriculture

United States House of Representatives

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Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for inviting me to testify today. My name is Lincoln Wood, and I serve as the Electrification Policy Manager of Southern Company.

Southern Company is one of America's largest energy companies, with 42,000 megawatts of generating capacity and 1,500 billion cubic feet of combined natural gas consumption and throughput volume serving 9 million customers through its subsidiaries, as of July 31st, 2021. The company provides clean, safe, reliable, and affordable energy through electric operating companies in three states, natural gas distribution companies in four states, a competitive generation company serving wholesale customers in 11 states across America and a nationally recognized provider of customized energy solutions, as well as fiber optics and wireless communications.

I am pleased to address the Committee today to share what steps Southern Company and its affiliates are taking to electrify the transportation sector. This is an important hearing on an important topic. According to EIA¹ the transportation sector is now the number one emitter of greenhouse gases; moving people and goods with electricity represents an un-paralleled opportunity to reduce the sector's carbon footprint. Additionally, it makes good economic sense---electric vehicles typically are cheaper to fuel, operate, and maintain.

First, on behalf of Southern Company, thank you to Congress for passing the bipartisan Infrastructure Investment and Jobs Act. The EV charging infrastructure investment of \$7.5 billion is a welcome development for the transportation sector and growing number of EV drivers nationwide. Paired with existing EV infrastructure investment both through regulated utility programs and private market investment, the Infrastructure Investment and Jobs Act will dramatically increase the availability of EV charging.

¹ http://www.eia.gov/todayinenergy/detail.cfm?id=29612

The energy we provide to charge electric vehicles continues to become cleaner. In 2018, Southern Company was among the first U.S. utilities to set a bold goal of net zero greenhouse gas (GHG) emissions by 2050 - and we're on the right track. We have rapidly transitioned our system's generation fleet. In 2020, the Southern Company system reduced GHG emissions 52% from its 2007 benchmark levels, exceeding its intermediate 2030 goal to reduce GHG emissions by 50%.

Electric Transportation Programs

Southern Company has a long history of supporting electric transportation. For more than five decades, Southern Company's world-class Research and Development (R&D) organization has remained at the forefront of innovation, including researching electric transportation technologies, both on-road and off-road. The Company is testing Smart Charging strategies to maximize the number of vehicles that can be charged with our current energy capacities, as well as ways to maximize range from battery packs. Additionally, Southern Company is a founding member of Energy Impact Partners², a venture capital fund focused on clean energy technologies including electric transportation.

Southern Company's electric operating companies offer specific electric vehicle programs and pricing options designed to meet customer electric transportation requirements. Alabama Power and Georgia Power both offer EV rates that provide clean, reliable, and affordable electricity for all EV charging requirements, from home charging to public fast charging.

As part of DOE's Clean Cities Program, Southern Company affiliates hold board seats in Alabama Clean Fuels Coalition and Georgia Clean Cities. These organizations work to promote the use of domestic, affordable alternative fuels including electricity, and improve transportation efficiency at the local, state, and national levels.

Both Alabama Power and Georgia Power are actively supporting EV charging infrastructure rollouts in their respective states. Alabama Power Company (APC) contributed \$737k to Alabama Dept. of Economic and Community Affairs (ADECA) awardees served by APC to assist their installation of DCFC along Interstate Corridors at ten sites.

As the largest of SoCo's electric subsidiaries, Georgia Power Company (GPC) offers additional infrastructure programs to accelerate adoption of EVs. GPC offers EV charger rebates for both residential

² www.energyimpactpartners.com

and business customers. The rebates range from \$100 to \$500 depending on the type and purpose of the installation.

Additionally, Georgia Power offers an EV time-of-use rate that offers 1 cent/kWh charging overnight, which allows an EV customer to charge their vehicle all month long for about \$20.1

Georgia Power offers two regulated electric vehicle charging infrastructure programs:

Community Charging Program – Business & Residential (GPC branded charging)

- Georgia Power's Community Charging program provides fast-charging sites along travel
 corridors to give charging options and increase EV drivers' confidence traveling throughout
 Georgia. Through this program, Power is addressing gaps in EV corridors according to the
 Federal Highway Administration in hopes to help Georgie become "EV Corridor Ready."
- The Community Charging locations are sited in partnership with GPC commercial business customers on their properties. Through this structure, both the business (site host) benefits as well as the public who rely on the EV charging infrastructure to travel both short and long distances.

Make Ready Program – Business & Residential: this program pays for infrastructure from the electricity meter up to but not including the charger.

- Georgia Power's Make Ready EV infrastructure program provides charging infrastructure to business owners to significantly reduce the cost of installing chargers for public, employee, or their business operations use.
- The Company partners with a variety of business customers that want to install infrastructure to support electric mobility technology charging. Examples of customer installations include public transit agencies, warehouse applications, multifamily residential properties, colleges and universities, and many others.

Additional programs in 2022

Southern Company Fleet Electrification Turnkey Offering: Strategic partnerships provide a turnkey offering for our customers who want to electrify their transportation fleets.

- Through strategic partnerships, each of Southern Company's electric subsidiaries offers:
 - software and consulting to analyze current fleet needs and understand the power implications of transitioning a customer's fleet.
 - resources for charging installation and financing, to effectively meet customers' needs and leverage any regulated utility programs.

Southern Company Electric Transportation---Industry Involvement

In 2020, Southern Company played a leadership role with the Department of Energy to produce a state-of-the-industry report, "Voices of Experience: An EV Transition3". This report represents the feedback from more than 3,500 industry stakeholders worldwide, representing 700 unique entities. Topics covered include deploying EV charging infrastructure, managing load, fleet electrification, new technology implications, and conventional fuel retailing.

Southern Company is a founding member of two dynamic electric transportation trade associations, the Alliance for Transportation Electrification, and the Zero Emissions Transportation Association.

Established in late 2017, the Alliance for Transportation⁴ (ATE) is state-focused, aligning EV policy at the state level. Counting automakers, utilities, EV charging providers, engineering firms, and standards-based organizations in its membership roster, ATE is one of North America's largest electric vehicle industry coalitions. Priorities include:

- Increasing EV charging infrastructure
- A strong utility role in EV charging
- A "big-tent" approach for all stakeholders
- Open standards among EV charging hardware and firmware

³ www.evplusgridworkshop.com

⁴ www.evtransportationalliance.org

The Zero Emission Transportation Association⁵ (ZETA) was established in 2020 with a singular vision: 100% electric vehicle sales in 2030. ZETA's policy focus is at the federal level; policy pillars span light, medium, and heavy-duty vehicles; recommendations for a national charging initiative, domestic manufacturing, performance and emissions standards, and federal leadership.

Southern Company is a founding member of the National Electric Highway Coalition⁶ (NEHC). The NECH, which was announced in December 2021, is comprised of 50 investor-owned utilities, one electric cooperative, and the Tennessee Valley Authority, and represents approximately 120 million U.S. electric customers across 47 states and the District of Columbia. The NEHC is committed to providing electric vehicle (EV) fast charging stations so that the public can drive EVs with confidence along major U.S. travel corridors by the end of 2023.

Workforce Development

In 2021, Southern Company and Georgia Power partnered with the University of Georgia's College of Engineering to create an e-Mobility Certificate program. With elements of engineering, public policy, public health, and business acumen, this new program will prepare Georgia's workforce for an electrified future. The Company is also working closely with design students at Georgia Tech to evaluate the environmental benefits and future workforce opportunities of transportation electrification.

Also in 2021, Alabama Power, in partnership with Mercedes-Benz and the University of Alabama, launched the Alabama Mobility and Power (AMP) Center in Tuscaloosa. The AMP Center will serve as a research and development hub for creating and sustaining modern mobility and power technologies, developing charging infrastructure and managing power delivery to support large-scale growth in electric vehicles.

⁵ www.zeta2030.org

⁶ National Electric Highway Coalition (eei.org)

Considerations for ongoing Congressional assistance

As Congress looks to 2022 and beyond, I wanted to leave you with a few ideas to provide additional support to transportation electrification:

- Create a multi-stakeholder, agriculture-focused electrification research program where new technology can be tested at reduced risk to farmers
- Continue to provide budgetary support to ARPA-E and other research programs, especially battery recycling and autonomous technologies
- Consider funding a specific electric vehicle education center at the federal level as a resource for K-12, technical schools, and universities nationwide, using the joint DOT and DOE office as a starting point

I am honored to have the chance to testify. I look forward to your questions.

Lincoln Wood Southern Company

Based in Atlanta, Lincoln Wood is Southern Company's Electrification Policy Manager. In this role, Lincoln works with external stakeholders in industry, government, and education to advance electric mobility at the national and state levels.

Since 2006, Lincoln has worked in complimentary areas of marketing including marketing research and statistical analysis, product development, policy development, and innovation. Some of his accomplishments include the planning, development, and rollout of an energy data usage presentment tool to over 3.5 million customers in Southern Company's territory, and playing a leadership role in DOE's national energy usage data privacy project, DataGuard. Currently, Lincoln works to further electric transportation technology and infrastructure penetration, both nationally and across the Southern Company footprint. Lincoln holds Bachelors' Degrees in Economics and Sociology from the University of Georgia, is a Certified Energy Manager, and a lifetime member of Alpha Kappa Delta Honor Society.

Lincoln also serves as chair of the Board of Directors for Smart Energy Consumer Collaborative, also based in Atlanta. SECC's mission is to serve as a trusted source of information for industry stakeholders seeking a broad understanding of consumers' views about grid modernization, electricity delivery and usage, and the value and experience of a modern electric grid.

More information on DataGuard at www.smartgrid.gov/data guard.html

More information on Smart Energy Consumer Collaborative at www.smartenergycc.org.

More information on Southern Company Electric Transportation at http://www.southerncompany.com/innovation/electric-transportation.html

Truth in Testimony Disclosure Form

In accordance with Rule XI, clause 2(g)(5)* of the Rules of the House of Representatives, witnesses are asked to disclose the following information. Please complete this form electronically by filling in the provided blanks.

Committee: Agriculture		
Subcommittee:		
Hearing Date: 01/12/2022 Hearing Title :		
Witness Name: Lincoln E. Wood		
Position/Title: Electrification Policy Manager		
Witness Type: O Governmental Non-governmental		
Are you representing yourself or an organization? O Self Organization		
If you are representing an organization, please list what entity or entities you are representing:		
Southern Company		
FOR WITNESSES APPEARING IN A NON-GOVERNMENTAL CAPACITY Please complete the following fields. If necessary, attach additional sheet(s) to provide more information.		
Are you a fiduciary—including, but not limited to, a director, officer, advisor, or resident agent—of any organization or entity that has an interest in the subject matter of the hearing? If so, please list the name o the organization(s) or entities.		
Southern Company Services (SCS)		

Please list any federal grants or contracts (including subgrants or subcontracts) related to the hearing's subject matter that you, the organization(s) you represent, or entities for which you serve as a fiduciary have received in the past thirty-six months from the date of the hearing. Include the source and amount of each grant or contract.

Subaward (Pending-Prime in negotiations with DOE)
Federal Agency-Department of Energy - Vehicle Technologies Office
Prime Recipient-General Motors LLC
Funding Opportunity Announcement-DE-FOA-002450-SuperTruck 3
Estimated Award to Southern Company Services, Inc.-\$3,142,106 (pending DOE approval of budget)
Southern Company Services Cost Share/Matching \$6,095,924

Please list any contracts, grants, or payments originating with a foreign government and related to the hearing's subject that you, the organization(s) you represent, or entities for which you serve as a fiduciary have received in the past thirty-six months from the date of the hearing. Include the amount and country of origin of each contract or payment.		
Order of contract of payments		
Please complete the following fields. If necessary	y, attach additional sheet(s) to provide more information.	
☑ I have attached a written statement of proposed	testimony.	
☑ I have attached my curriculum vitae or biograph	ay.	

*Rule XI, clause 2(g)(5), of the U.S. House of Representatives provides:

(5)(A) Each committee shall, to the greatest extent practicable, require witnesses who appear before it to submit in advance written statements of proposed testimony and to limit their initial presentations to the committee to brief summaries thereof.

(B) In the case of a witness appearing in a non-governmental capacity, a written statement of proposed testimony shall include—
(i) a curriculum vitae; (ii) a disclosure of any Federal grants or contracts, or contracts, grants, or payments originating with a foreign government, received during the past 36 months by the witness or by an entity represented by the witness and related to the subject matter of the hearing; and (iii) a disclosure of whether the witness is a fiduciary (including, but not limited to, a director, officer, advisor, or resident agent) of any organization or entity that has an interest in the subject matter of the hearing.

(C) The disclosure referred to in subdivision (B)(iii) shall include—(i) the amount and source of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) related to the subject matter of the hearing; and (ii) the amount and country of origin of any payment or contract related to the subject matter of the hearing originating with a foreign government.

(D) Such statements, with appropriate redactions to protect the privacy or security of the witness, shall be made publicly available in electronic form 24 hours before the witness appears to the extent practicable, but not later than one day after the witness appears.